REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is requested. Claims 26-42 are in this application. Claims 1-25 have been cancelled. Claims 26-42 have been newly added. The specification has also been amended to change the title to more accurately reflect the present invention.

Applicant wishes to replace the informal drawings filed with the application with the replacement sheets attached in Appendix A. Marked up copies of the informal drawings have not attached as it is believed that the replacement sheets have the same content as the informal drawings except for informalities. (The present replacement sheets are also to replace the formal drawings filed on August 15, 2003, and received by the PTO on August 18, 2003, if these drawings have been entered into the file.)

The Examiner required that the invention be restricted to one of three species. The species identified by the Examiner include a first species represented by claims 3, 6-8, 10, and 11; a second species represented by claims 4, 5, 14, and 15; and a third species represented by claims 21-25. In response, applicant filed an amendment on April 8, 2005 (which was received by the PTO on April 11, 2005). In the amendment, applicant elected to prosecute the species shown in applicant's FIGS. 1A-1B, and identified the claims that were believed to read on the embodiment shown in applicant's FIGS. 1A-1B.

The Examiner argued that the April 8, 2005 amendment was not fully responsive because applicant did not elect one of the claim groups identified by the Examiner.

Applicant disagrees that three species are present, while at the same time wishes to resolve the issue as simply as possible. Thus, in an effort to expedite prosecution, applicant has cancelled claims 1-25, and presented new claims 26-42, which include a single independent claim 26. Since a single independent claim is present, it is not possible for more than a single invention to be present.

Amendment in Response to Office Action mailed July 1, 2005

Atty. Docket No. 100-22300 (P05613)

New claim 26 recites, in part:

"a continuous doped region of a second conductivity type formed in the semiconductor material, the doped region having a first region and a spaced-apart second region, different potentials being placed on the first and second regions of the continuous doped region to cause a current to flow between the first region and the second region."

In rejecting the previous claims, the Examiner pointed to regions 62 and 64 shown in FIG. 15 of Gonzalez et al. (U.S. Patent Application Publication No. US 2002/0017678 A1 cited in September 10, 2004 office action) as constituting the doped region. Applicant, however, can not find any discussion in Gonzalez that teaches or suggests a doped region as required by claim 26.

As shown in FIG. 15 of Gonzalez, regions 62 and 64 are not a continuous region and, therefore, cannot be read together to be the continuous doped region required by claim 26. Considering region 62 separately, applicant can not find any discussion in that teaches or suggests that different potentials are ever applied to first and second regions of doped region 62.

As a result, claim 26 is patentable over Gonzalez. In addition, since claims 27-42 depend either directly or indirectly from claim 26, claims 27-42 are patentable over Gonzalez for the same reasons as claim 26.

Thus, for the foregoing reasons, it is submitted that all of the claims are in a condition for allowance. Therefore, the Examiner's early re-examination and reconsideration are respectively requested.

Respectfully submitted,

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Amendment in Response to Office Action mailed July 1, 2005

Atty. Docket No. 100-22300 (P05613)

APPENDIX A